

Extension Service
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"GOOD VOLTAGE THROUGH GOOD TEACHING"

Presented at the Fourth National Farm Electrification Conference,
Stevens Hotel, Chicago, Illinois, December 21, 1949.

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OBJECTIVE: To demonstrate the fact that effective teaching requires the use of many teaching media; that information has to be made available repeatedly and in several different ways if it is to be learned and used; that good teaching is a community affair.

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The presentation is not directed at farm families. It is directed at those who work with farm families. While the skit portion of the presentation illustrates the teaching of good wiring, this is used only as an example. Information on the advantages of pressure water systems or barn hay curing or any other use of electricity on the farm could have been used just as well.

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ACKNOWLEDGEMENTS

"Good Voltage Through Good Teaching" was a joint production in which the various members of the cast wrote their own parts. The Conference Program Committee is indebted to them for their contributions.

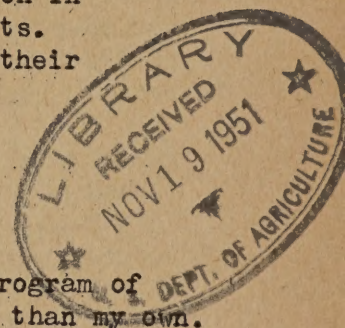
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OPENING STATEMENT

Warner (as chairman): Your surprise at seeing my name on this program of the National Farm Electrification Conference could be no greater than my own. I am not an engineer. I am not a manufacturer or salesman or developer of rural power lines. I am a meat specialist in the Extension Service. My job is to help farm people in the production, preparation and preservation of their home-raised meat supply.

Since frozen food lockers and storage cabinets came into the picture, all workers in the meat field have had more contact with engineering. I now know what the K factor is, though I could not calculate insulation or refrigeration requirements. I do know the difference between volts and amperes but it is still a mystery where volts go to when they drop.

That a person of my background should be on your program is further evidence of the fact that when you want to make information available to all the people, you have to use all the people to do it. Even meat specialists.



Your Conference Theme has been "Electricity in Today's Farm and Home Planning." We all recognize that individual farm families need information to plan - and information means teaching.

Research by the Extension Service in several states has discovered that effective teaching requires many teaching methods. The percentage of people and families accepting and responding to teaching efforts is in direct proportion to the number of times they have been exposed to information. When exposed in five different ways, approximately 7 out of every 8 families receiving this information changed their behavior.

Your Program Committee has been disturbed by the fact that many farm families, now receiving electric service, are not making full and effective use of electricity to make their lives easier and reduce costs. They are not obtaining the satisfactory and economical performance that they expected and that is possible. There are several causes of these difficulties but many of them trace back to lack of information.

It may seem strange to you that this situation should exist in spite of all the fine educational work that your whole industry has done; but this failure of people to grasp the essential details of installing and using electricity on the farm is characteristic of the problem that all teachers face, even the ones who tried to teach you and me.

If you would really teach me, you first must arouse my interest. You must help me to see your facts as a means of satisfying some of my definite wants. Then you tell me what you are going to tell me; next you tell and show it to me with my participation, if possible; lastly, you must tell and retell what you have told me and help me use those facts. One of the chief characteristics of the human mind is an infinite capacity to forget. The teacher's job is to make it easy and interesting to learn and remember.

The purpose of your Program Committee was to give you some help this afternoon in making your educational work more effective. The usual procedure would have been, particularly at a convention, to collect a group of competent people, such as we have here, and talk to you. Preaching has its place in education and we all do a lot of it; but words alone are rarely as effective as words with action. So today we bring you a skit, imagined from real life. Together, this group will present a teaching program for the residents of what we will call the South River community.

To do this we are going to follow a basic rule of good teaching. We are going to concentrate. The teacher can't pour out complete salvation in a single lesson. You can't teach success with electricity in a single afternoon. So today we are going to concentrate on one thing - on good wiring, on adequate, economical, safe, convenient wiring.

Although we are concentrating on more adequate wiring for our South River community, we are going to include most of the teaching media that are available. We are going to use the farm press, local newspaper, radio, movies, demonstrations and exhibits. This talent on the platform is going to give South River the works - is going to practice the cooperation, continuity and follow-up that they preach.

Each of these teaching instruments has its place, has its special job to do. So as we introduce the panel to you, we are asking each one to take a few minutes to describe the place of his particular teaching medium in the whole educational picture.

The first one is Mr. R. L. Foster, Associate Editor of Capper's Farmer, advocate for the farm press.

FOSTER: Farmers are interested in how other farmers farm. This truth is built into the foundation of successful farm magazines. And, it is the basis of influence of farm magazines in promoting better farming.

Good farming practices are founded on scientific research, but facts of research become more impressive as they are confirmed on individual farms. Reporting of how one farmer combined experience and research to avoid hazards of brooding baby chicks brought over 300,000 requests from readers for details of this farmer's successful method. Here is overwhelming proof that farmers want to know how other farmers gain success.

Bill Jackson likes to read how John Smith uses electricity to dry hay. Jackson takes pride in making good field cured hay, but when he learns how Smith avoids weather damage by drying hay in the barn he sees a way out of a common difficulty. In imagination Jackson adapts the method to his own barn and next time he goes to the county seat he will be asking the county agent or the electric office for plans.

Neighbors of good farmer Bill Gfeller thought he was extravagant in spending \$15 a month for electric current. That is, until Bill showed them all the services he got for \$15. When we reported how Bill had found a hired man with 18 pairs of hands on call night and day for only 50 cents a day, hundreds of other farmers got a new picture of the advantages of rural electrical services.

Likewise, much farm magazine advertising is based on the principle that the Jacksons like to read about the Smiths, and vice versa. In the advertising columns the manufacturer shows how an individual farmer saves time and money thru use of the electric arc welder, or the hay drier, or the feed mill, or the freezer cabinet, or an insecticide. Appeal of modern advertising is by example rather than boastful statement.

A bow also to the newspaper as an agent for the gospel of good farming. Whether it be a weekly or a daily, the home town paper can, if it will, promote good farm living. "More Money on Main Street" was the title of our story, describing the influence of a newspaper on good farming practices in its community. Directed by a farm-minded editor it raised a lusty voice in promoting soil conservation, crop diversification, good seed, better livestock, higher yields - all of which added to the income and welfare of farm families. Consequently farmers had more money to spend with the merchants on main street for milking machines, radios, tractors, refrigerators, books, furniture, barns and bathtubs.

WARNER: My job as chairman is to summarize what Mr. Foster has just said; to try to describe the particular educational strength of the press in a word or two. The trouble is that when I select one word I immediately want to add three or four others. All teaching methods overlap - do several jobs. Each

supplements the other. Discovering the especial teaching strength of the press is difficult but I'll try. The word chosen is "report." The outstanding educational job of the press is to report.

Next, we have John A. Murray of the University of Illinois. Mr. Murray will present the case for radio.

MURRAY: Radio's particular genius is that of speed. We might call it an "Electronic Paul Revere" - a courier of information, which reaches more people, more quickly, than any other media of mass communications. Radio is an open door into the homes of most of the people of this country - all of the homes that have sets. Radio offers you a unique opportunity to tell your story to large numbers of people - and in a hurry.

Obviously, radio has its limitations. Radio is fleeting. The spoken word is here, then it's gone forever. There's no opportunity for the listener to ask a question, check a statement, or have a statement repeated. Radio, therefore, must stimulate rather than give detailed instructions. It is especially useful in influencing attitudes or in arousing interest. Used in its proper form, radio suggests. Repeated suggestions create attitudes, which in turn bring about the desire for more information or some positive action.

Commercial organizations have long recognized radio's value in creating attitudes. "LSMET" - "Tide's In - Dirt's Out" - - "Drene Shampoo is sensational - sensational" - - all of this to create an attitude in your mind, to motivate you to buy that product. And I'm convinced that better farming and homemaking practices can be "sold" just as effectively as cigarettes and soap.

WARNER: Radio, that fast, far-reaching teaching aid, is best used, says Mr. Murray, to influence attitudes, to sell.

Where movies fit into the educational picture will be discussed by Mr. A. H. Hemker of the General Electric Company. Mr. Hemker -

HEMKER: Motion pictures are the most flexible of our informational media. You can turn off the lights, turn on the projector and take your audience anywhere and show them anything. You use the picture of the press, the words of the radio, and add to them the action that makes words and pictures live.

When the going gets tough and you need a change of pace, animated cartoons, or animated diagrams, or optical illusions, with or without color, can be inserted to renew interest.

Causes and results parade across the screen to illustrate the problem; the solution, and the satisfactions that are produced.

Participation, that final part of effective teaching is not possible in a movie, but a thread of human interest can often be inserted. It is a fair substitute for participation. The audience sees itself as the individual or family who struggles and succeeds in your movie.

If you would teach me some specific job, a movie would rarely be enough. You would need participation, too. But motion pictures will help you arouse my interest in learning, show me what I am to learn, and help me check the method after I had tried it.

WARNER: Mr. Hemker says movies "show me what I am to learn and help me check the method after I have tried it."

For a summary may I offer "preview" and "review."

The teaching value of the demonstration will be explained by Mr. H. C. Rutt of the Public Service Company of Northern Illinois. Mr. Rutt -

RUTT: A demonstration provides a direct contact between the learner and the actual job. The preliminaries are over. This is the tryout. This is the chance to see if it really works; to see if he can do it himself.

The press reports the success of some person with this method. The radio urges me to investigate, even to adopt it. The movies show me how some expert does it; but still I wonder. Is it as simple as it sounds? Can I actually do it? Does it apply to my situation? The demonstration answers these questions.

The demonstration also provides an opportunity for questions and answers. It gives me, the listener, a chance to suggest adaptations or improvements; to discuss ways and means that fit it to my conditions.

Following a demonstration I am no longer a mere listener or spectator, I am part of the program. I have seen it done, done it myself, made my contribution to its improvement. This new method is partly mine.

Demonstrations provide the essential contact between the learner and the actual job.

WARNER: Mr. Rutt says that the purpose of the demonstration is to do the actual training, to make the final transfer from the teacher to the learner. I think we would agree.

Where do bulletins fit into the teaching picture? This will be answered by Mr. W. C. Krueger, Extension Agricultural Engineer of Rutgers University. Mr. Krueger -

KRUEGER: Bulletins and circulars, whether of commercial or public agency origin, contain many of the desirable qualities of the other media for spreading the gospel of better agriculture. Our purpose here is to point out the peculiar strengths of the written word in pamphlet form.

1. A bulletin constitutes a permanent reference. You can possess it, study and refer to it at leisure, follow its step-by-step instructions.
2. Bulletins permit a most complete presentation of subject matter. From them you may obtain the pros and cons, reasons for recommendations, drawings, diagrams, charts, photos, and tables.

3. Bulletins and related literature remain one of the few teaching media that have retained their reputation for authoritative accuracy in the judgment of the modern farmer. To a degree not paralleled in other contacts, such literature carries the indorsement of the manufacturer, the power supplier or the college originating it.

WARNER: Bulletins, says Mr. Krueger, are a reference, complete, authoritative, permanent reference. We who have both written and read bulletins could add that some are easy to understand and some, unhappily, are not.

The broad field of personal contact will be handled by Mr. W. H. Tammeus, Farm Adviser in McHenry County, Illinois.

TAMMEUS: In presenting the importance of personal contact, in this job of teaching, I wish to call attention to the phenomenon of courtship. It is not hard for the young man who is in love to see the importance of personal contact in getting the object of his affection to learn about his feelings. How absurd it would be for him to use the press, the radio, the movies, or publications. All of these might give her a general idea of his intentions but he doesn't get her to say "yes" with a general approach. Publications he sends if he can't get there; but mostly he tries to combine demonstrations with personal contact.

Of course, I don't think the farmer should marry his wiring system, but he spends nearly as much time with it as he does with his wife, so it should, like his wife, be adequate.

This approach to the subject was motivated by the short essay written by a school boy on the life of Benjamin Franklin. He said, "Ben was born, raised, and educated in Boston. He traveled to Philadelphia where, while walking, hungry, down the street, he met a young lady with a loaf of bread under her arm. He fell in love, married her, and discovered electricity." Personal contact was used throughout.

Personal contact is probably the best possible method for the county agent, local dealer or the fieldman for the Electric Company to get information to the farm family, but this method has its hazards. In the first place, the method is slow and, like my storm windows and screens, the fieldman gets in late on the deal - some jack-leg contractor who doesn't understand the farmer's needs has already installed an inadequate system.

For many jobs, however, personal contact is an essential. Adequate wiring is one. Each wiring job, almost each outlet is different. Wiring has to be tailored to fit just like a pair of pants. I know how to change my brand of seed corn without personal contact but to lay out terraces, or such jobs as planning hay drying equipment, or installing adequate wiring I need personal help from a man who knows.

Personal contact takes time but for many teaching jobs, including courtship, personal contact is an essential.

WARNER: Coming out of Mr. Tanneus' dimly lighted parlor, with regret, I think we could say that personal contact is often needed to clinch the nail, sometimes also to drive it.

In the skit which follows Mr. H. S. Pringle of the Extension Service appears as the County Agent. Mr. Dawson Womeldorf will help Mr. Murray in a radio interview.

This is our cast.

Our skit is entitled "Good Voltage Through Good Teaching." Our objective is to show that effective teaching requires many methods; that teaching should be made a community affair.

We are ready for the Lights! and Action ! (Slide No. 1 on)

